

In the Claims

Claims 36-41 have been added as follows:

1. (Previously Amended) A multiwell plate for use in assaying samples, comprising:
a frame that forms sidewalls of at least one well, the frame being formed from a plasma treated polymeric material;
a layer that forms a bottom wall of the at least one well, the layer being formed from pyrolyzed glass;
said frame and said layer are attached and bound to one another by an adhesive mixed with a silane monomer that interacts with the adhesive, said frame and said layer in a manner which strengthens a bond between said frame and said layer;
wherein said pyrolyzed glass was subjected to a pyrolysis process to free silanol groups that interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said layer;
and
wherein said plasma treated polymeric material was subjected to a plasma treatment process to create reactive groups that interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said frame.

2. (Previously Amended) The multiwell plate of Claim 1, wherein said plasma treated polymeric material is plasma treated polystyrene.

Claims 3-4. (Currently Canceled)

5. (Original) The multiwell plate of Claim 1, wherein said adhesive is a non-cytotoxic adhesive.

Claim 6 (Previously Cancelled)

7. (Previously Amended) The multiwell plate of Claim 1, wherein said silane monomer is 3-(trimethoxysilyl)propyl methacrylate.

8. (Allowed) A multiwell plate forming a plurality of sample wells for holding samples to be assayed, said multiwell plate comprising:

an upper plate that forms sidewalls of the sample wells, said upper plate made from a plasma treated polymeric material;

a lower plate that forms bottom walls of the sample wells, said lower plate made from a pyrolyzed glass, wherein said upper plate was joined to said lower plate by an adhesive mixed with a silane monomer that polymerized to form a compatible network with the adhesive to strengthen a bond between said upper plate and said lower plate;

said silane monomer includes silane functional groups that interact with reactive groups associated with said plasma treated polymeric material to strengthen a bond between said adhesive and said upper plate; and

said silane monomer includes silane functional groups that interact with silane reactive groups associated with said pyrolyzed glass to strengthen a bond between said adhesive and said lower plate.

9. (Allowed) The multiwell plate of Claim 8, wherein said plasma treated polymeric material is polystyrene.

10. (Allowed) The multiwell plate of Claim 8, wherein said adhesive mixed with the silane monomer is a non-cytotoxic adhesive.

Claim 11 (Previously Cancelled).

12. (Allowed) The multiwell plate of Claim 8, wherein said silane monomer is 3-(trimethoxysilyl)propyl methacrylate.

Claims 13-24 (Previously Cancelled).

25. (Previously Amended) The multiwell plate of Claim 1, wherein said silane monomer is 3-(mercaptopropyl)trimethoxy silane.

26. (Previously Amended) The multiwell plate of Claim 1, wherein said silane monomer is tris2-(methoxyethoxy)vinyl silane.

27. (Allowed) A multiwell plate forming a plurality of sample wells for holding samples to be assayed, said multiwell plate comprising:

an upper plate that forms sidewalls of the sample wells, said upper plate made from a plasma treated polymeric material; and

a lower plate that forms bottom walls of the sample wells, said lower plate made from a pyrolyzed glass, wherein said upper plate was joined to said lower plate by an adhesive mixed with a silane monomer that polymerized to form a compatible network with the adhesive to strengthen a bond between said upper plate and said lower plate.

28. (Allowed) The multiwell plate of Claim 27, wherein said plasma treated polymeric material was subjected to a plasma treatment process to create reactive groups that would interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said upper plate.

29. (Allowed) The multiwell plate of Claim 27, wherein said pyrolyzed glass was subjected to a pyrolysis process to free silanol groups that would interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said lower plate.

30. (Previously Amended) A multiwell plate forming a plurality of sample wells for holding samples to be assayed, said multiwell plate comprising:

an upper plate that forms sidewalls of the sample wells, said upper plate made from a polymeric material; and

a lower plate that forms bottom walls of the sample wells, said lower plate made from a pyrolyzed glass, wherein said upper plate was joined to said lower plate by an adhesive mixed with a silane monomer that polymerized to form a compatible network with the adhesive to strengthen a bond between said upper plate and said lower plate, wherein said polymeric material is plasma treated polymeric material after being subjected to a plasma treatment process to create reactive groups that would interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said upper plate.

31. (Currently Canceled)

32. (Previously Added) The multiwell plate of Claim 30, wherein said pyrolyzed glass was subjected to a pyrolysis process to free silanol groups that would interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said lower plate.

33. (Allowed) A multiwell plate forming a plurality of sample wells for holding samples to be assayed, said multiwell plate comprising:

an upper plate that forms sidewalls of the sample wells, said upper plate made from a plasma treated polymeric material; and

a lower plate that forms bottom walls of the sample wells, said lower plate made from a glass, wherein said upper plate was joined to said lower plate by an adhesive mixed with a silane monomer that polymerized to form a compatible network with the adhesive to strengthen a bond between said upper plate and said lower plate.

34. (Allowed) The multiwell plate of Claim 33, wherein said plasma treated polymeric material was subjected to a plasma treatment process to create reactive groups that would interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said upper plate.

35. (Allowed) The multiwell plate of Claim 33, wherein said glass is pyrolyzed glass after being subjected to a pyrolysis process to free silanol groups that would interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said lower plate.

36. (Currently Added) A multiwell plate having a plurality of sample wells for holding samples to be assayed, said multiwell plate comprising:

an upper plate that forms sidewalls of the sample wells, said upper plate made from a plasma treated polymeric material; and

a lower plate that forms bottom walls of the sample wells, said lower plate made from a glass, wherein said upper plate was joined to said lower plate by an adhesive which contained a silane monomer that polymerized within the adhesive to strengthen a bond between said upper plate and said lower plate.

37. (Currently Added) The multiwell plate of Claim 36, wherein said plasma treated polymeric material was subjected to a plasma treatment process to create reactive groups that would interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said upper plate.

38. (Currently Added) The multiwell plate of Claim 36, wherein said glass is pyrolyzed glass that was subjected to a pyrolysis process to free silanol groups that would interact with the silane monomer in said adhesive to further strengthen the bond between said adhesive and said lower plate.

39. (Currently Added) The multiwell plate of Claim 36, wherein said silane monomer is 3-(trimethoxysilyl)propyl methacrylate,

40. (Currently Added) The multiwell plate of Claim 36, wherein said silane monomer is 3-(mercaptopropyl)trimethoxy silane.

41. (Currently Added) The multiwell plate of Claim 36, wherein said silane monomer is tris2-(methoxyethoxy)vinyl silane.